Loeb

14 TK 6/20/01

RAW SEQUENCE LISTING
PATENT APPLICATION: **US/09/515,363B**

DATE: 06/20/2001
TIME: 16:07:52

sep 5

Input Set : **A:\pto.txt**
Output Set: **N:\CRF3\06202001\I515363B.raw**

ENTERED

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 3 <110> APPLICANT: Fisher, Paul
 5 <120> TITLE OF INVENTION: Melanoma Differential Associated Gene-5 (mda-5), Promoter
and uses
 6       Thereof
 8 <130> FILE REFERENCE: 0575/60849
10 <140> CURRENT APPLICATION NUMBER: 09/515,363B
11 <141> CURRENT FILING DATE: 2000-02-29
13 <160> NUMBER OF SEQ ID NOS: 3
15 <170> SOFTWARE: PatentIn version 3.0
17 <210> SEQ ID NO: 1
18 <211> LENGTH: 3365
19 <212> TYPE: DNA
20 <213> ORGANISM: Human
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27 cagcaccatc tgcttgggag aaccctctcc cttctctgag aaagaaagat gtcgaatggg     180
29 tattccacag acgagaattt ccgctatctc atctcgtgct tcagggccag ggtgaaaatg     240
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39 ccatcgtttg agaacgctca tgatgaatat ctccaactgc tgaacctcct tcagcccact     540
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43 acaattgaag acagaaaccg gattgctgct gcagaaaaca atggaaatga atcaggtgta     660
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47 cttcgtcaaa caggaaacaa tgaacttgtc caagagttaa caggctctga ttgctcagaa     780
49 agcaatgcag agattgagaa tttatcacaa gttgatggtc ctcaagtgga gagcaactt     840
51 ctttcaacca cagttcagcc aaatctggag aaggaggtct ggggcatgga gaataactca     900
53 tcagaatcat cttttgcaga ttcttctgta gtttcagaat cagacacaag tttggcagaa     960
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61 atcatcatct gcctccctac agggagtgga aaaaccagag tggctgttta cattgccaag    1200
63 gatcacttag acaagaagaa aaaagcatct gagcctggaa aagttatagt tcttgtcaat    1260
65 aaggtactgc tagttgaaca gctcttccgc aaggagttcc aaccattttt gaagaaatgg    1320
67 tatcgtgtta ttggattaag tggtgatacc caactgaaaa tatcatttcc agaagttgtc    1380
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77 ctgggactaa cagcttcacc tggtgttgga ggggccacga agcaagccaa agctgaagaa    1680
79 cacatttttaa aactatgtgc caatcttgat gcatttacta ttaaaactgt aaagaaaac    1740
81 cttgatcaac tgaaaaacca aatacaggag ccatgcaaga gtttgccat tgcagatgca    1800
83 accagagaag atccatttaa agagaaactt ctagaaataa tgacaaggat tcaaacttat    1860
85 tgtcaaatga gtccaatgtc agattttgga actcaaccct atgaacaatg gccattcaa    1920
87 atggaaaaaa aagctgcaaa aaaggaaat cgcaaagaac gtgtttgtgc agaacatttg    1980
89 aggaagtaca atgaggccct acaaattaat gacacaattc gaatgataga tgcgtatact    2040
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 93 agtgatgagg gtggtgatga tgagtattgt gatggtgatg aagatgagga tgatttaaag   2160
 95 aaacctttga aactggatga aacagataga tttctcatga ctttattttt tgaaaacaat   2220
 97 aaaatgttga aaaggctggc tgaaaaccca gaatatgaaa atgaaaagct gaccaaatta   2280
 99 agaaatacca taatggagca atatactagg actgaggaat cagcacgagg aataatcttt   2340
101 acaaaaacac gacagagtgc atatgcgctt tcccagtgga ttactgaaaa tgaaaaattt   2400
103 gctgaagtag gagtcaaagc ccaccatctg attggagctg gacacagcag tgagttcaaa   2460
105 cccatgacac agaatgaaca aaaagaagtc attagtaaat ttcgcactgg aaaaatcaat   2520
107 ctgcttatcg ctaccacagt ggcagaagaa ggtctggata ttaaagaatg taacattgtt   2580
109 atccgttatg gtctcgtcac caatgaaata gccatggtcc aggcccgtgg tcgagccaga   2640
111 gctgatgaga gcacctacgt cctggttgct cacagtggtt caggagttat cgaacatgag   2700
113 acagttaatg atttccgaga gaagatgatg tataaagcta tacattgtgt tcaaaatatg   2760
115 aaaccagagg agtatgctca taagattttg gaattacaga tgcaaagtat aatggaaaag   2820
117 aaaatgaaaa ccaagagaaa tattgccaag cattacaaga ataacccatc actaataact   2880
119 ttcctttgca aaaactgcag tgtgctagcc tgttctgggg aagatatcca tgtaattgag   2940
121 aaaatgcatc acgtcaatat gacccagaa ttcaaggaac tttacattgt aagagaaaac   3000
123 aaagcactgc aaaagaagtg tgccgactat caaataaatg gtgaaatcat ctgcaaatgt   3060
125 ggccaggctt ggggaacaat gatggtgcac aaaggcttag atttgccttg tctcaaaata   3120
127 aggaatttttg tagtggtttt caaaaataat tcaacaaaga aacaatacaa aaagtgggta   3180
129 gaattaccta tcacatttcc caatcttgac tattcagaat gctgtttatt tagtgatgag   3240
131 gattagcact tgattgaaga ttcttttaaa atactatcag ttaaacattt aatatgatta   3300
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138 <210> SEQ ID NO: 2
139 <211> LENGTH: 3131
140 <212> TYPE: PRT
141 <213> ORGANISM: Human
143 <400> SEQUENCE: 2

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149             20                  25                  30
151 Cys Cys Gly Cys Thr Ala Thr Cys Thr Cys Ala Thr Cys Thr Cys Gly
152         35                  40                  45
154 Thr Gly Cys Thr Thr Cys Ala Gly Gly Gly Cys Cys Ala Gly Gly Gly
155     50                  55                  60
157 Thr Gly Ala Ala Ala Ala Thr Gly Thr Ala Cys Ala Thr Cys Cys Ala
158 65                  70                  75                  80
160 Gly Gly Thr Gly Gly Ala Gly Cys Cys Thr Gly Thr Gly Cys Thr Gly
161                 85                  90                  95
163 Gly Ala Cys Thr Ala Cys Cys Thr Gly Ala Cys Cys Thr Thr Thr Cys
164             100                 105                 110
166 Thr Gly Cys Cys Thr Gly Cys Ala Gly Ala Gly Gly Thr Gly Ala Ala
167         115                 120                 125
169 Gly Gly Ala Gly Cys Ala Gly Ala Thr Thr Cys Ala Gly Ala Gly Gly
170     130                 135                 140
172 Ala Cys Ala Gly Thr Cys Gly Cys Cys Ala Cys Cys Thr Cys Cys Gly
173 145                 150                 155                 160
175 Gly Gly Ala Ala Cys Ala Thr Gly Cys Ala Gly Gly Cys Ala Gly Thr
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Input Set : **A:\pto.txt**
Output Set: **N:\CRF3\06202001\I515363B.raw**

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178 Thr Gly Ala Ala Cys Thr Gly Cys Thr Gly Cys Thr Gly Ala Gly Cys
179                 180                 185                 190
181 Ala Cys Cys Thr Thr Gly Gly Ala Gly Ala Ala Gly Gly Gly Ala Gly
182         195                 200                 205
184 Thr Cys Thr Gly Gly Cys Ala Cys Cys Thr Thr Gly Gly Thr Thr Gly
185     210                 215                 220
187 Gly Ala Cys Thr Cys Gly Gly Gly Ala Ala Thr Thr Cys Gly Thr Gly
188 225                 230                 235                 240
190 Gly Ala Gly Gly Cys Cys Cys Thr Cys Cys Gly Gly Ala Gly Ala Ala
191                 245                 250                 255
193 Cys Cys Gly Gly Cys Ala Gly Cys Cys Cys Thr Cys Thr Gly Gly Cys
194             260                 265                 270
196 Cys Gly Cys Cys Cys Gly Cys Thr Ala Cys Ala Thr Gly Ala Ala Cys
197         275                 280                 285
199 Cys Cys Thr Gly Ala Gly Cys Thr Cys Ala Cys Gly Gly Ala Cys Thr
200     290                 295                 300
202 Thr Gly Cys Cys Cys Thr Cys Thr Cys Cys Ala Thr Cys Gly Thr Thr
203 305                 310                 315                 320
205 Thr Gly Ala Gly Ala Ala Cys Gly Cys Thr Cys Ala Thr Gly Ala Thr
206             325                 330                 335
208 Gly Ala Ala Thr Ala Thr Cys Thr Cys Cys Ala Ala Cys Thr Gly Cys
209             340                 345                 350
211 Thr Gly Ala Ala Cys Cys Thr Cys Cys Thr Thr Cys Ala Gly Cys Cys
212         355                 360                 365
214 Cys Ala Cys Thr Cys Thr Gly Gly Thr Gly Gly Ala Cys Ala Ala Gly
215     370                 375                 380
217 Cys Thr Thr Cys Thr Ala Gly Thr Thr Ala Gly Ala Gly Ala Cys Gly
218 385                 390                 395                 400
220 Thr Cys Thr Thr Gly Gly Ala Thr Ala Ala Gly Thr Gly Cys Ala Thr
221             405                 410                 415
223 Gly Gly Ala Gly Gly Ala Gly Gly Ala Ala Cys Thr Gly Thr Thr Gly
224             420                 425                 430
226 Ala Cys Ala Ala Thr Thr Gly Ala Ala Gly Ala Cys Ala Gly Ala Ala
227         435                 440                 445
229 Ala Cys Cys Gly Gly Ala Thr Thr Gly Cys Thr Gly Cys Thr Gly Cys
230     450                 455                 460
232 Ala Gly Ala Ala Ala Ala Cys Ala Ala Thr Gly Gly Ala Ala Ala Thr
233 465                 470                 475                 480
235 Gly Ala Ala Thr Cys Ala Gly Gly Thr Gly Thr Ala Ala Gly Ala Gly
236             485                 490                 495
238 Ala Gly Cys Thr Ala Cys Thr Ala Ala Ala Ala Ala Gly Gly Ala Thr
239         500                 505                 510
241 Thr Gly Thr Gly Cys Ala Gly Ala Ala Ala Gly Ala Ala Ala Ala Cys
242     515                 520                 525
244 Thr Gly Gly Thr Thr Cys Thr Cys Thr Gly Cys Ala Thr Thr Thr Cys
245     530                 535                 540
247 Thr Gly Ala Ala Thr Gly Thr Thr Cys Thr Thr Cys Gly Thr Cys Ala
248 545                 550                 555                 560
```

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250 Ala Ala Cys Ala Gly Gly Ala Ala Ala Cys Ala Ala Thr Gly Ala Ala
251             565             570             575
253 Cys Thr Thr Gly Thr Cys Cys Ala Ala Gly Ala Gly Thr Thr Ala Ala
254             580             585             590
256 Cys Ala Gly Gly Cys Thr Cys Thr Gly Ala Thr Thr Gly Cys Thr Cys
257         595             600             605
259 Ala Gly Ala Ala Ala Gly Cys Ala Ala Thr Gly Cys Ala Gly Ala Gly
260     610             615             620
262 Ala Thr Thr Gly Ala Gly Ala Ala Thr Thr Thr Ala Thr Cys Ala Cys
263 625             630             635             640
265 Ala Ala Gly Thr Thr Gly Ala Thr Gly Gly Thr Cys Cys Thr Cys Ala
266             645             650             655
268 Ala Gly Thr Gly Gly Ala Ala Gly Ala Gly Cys Ala Ala Cys Thr Thr
269             660             665             670
271 Cys Thr Thr Thr Cys Ala Ala Cys Cys Ala Cys Ala Gly Thr Thr Cys
272         675             680             685
274 Ala Gly Cys Cys Ala Ala Ala Thr Cys Thr Gly Gly Ala Gly Ala Ala
275     690             695             700
277 Gly Gly Ala Gly Gly Thr Cys Thr Gly Gly Gly Gly Cys Ala Thr Gly
278 705             710             715             720
280 Gly Ala Gly Ala Ala Thr Ala Ala Cys Thr Cys Ala Thr Cys Ala Gly
281             725             730             735
283 Ala Ala Thr Cys Ala Thr Cys Thr Thr Thr Thr Gly Cys Ala Gly Ala
284         740             745             750
286 Thr Thr Cys Thr Thr Cys Thr Gly Thr Ala Gly Thr Thr Thr Cys Ala
287         755             760             765
289 Gly Ala Ala Thr Cys Ala Gly Ala Cys Ala Cys Ala Ala Gly Thr Thr
290     770             775             780
292 Thr Gly Gly Cys Ala Gly Ala Ala Gly Gly Ala Ala Gly Thr Gly Thr
293 785             790             795             800
295 Cys Ala Gly Cys Thr Gly Cys Thr Thr Ala Gly Ala Thr Gly Ala Ala
296         805             810             815
298 Ala Gly Thr Cys Thr Thr Gly Gly Ala Cys Ala Thr Ala Ala Cys Ala
299         820             825             830
301 Gly Cys Ala Ala Cys Ala Thr Gly Gly Gly Cys Ala Gly Thr Gly Ala
302     835             840             845
304 Thr Thr Cys Ala Gly Gly Cys Ala Cys Cys Ala Thr Gly Gly Gly Ala
305     850             855             860
307 Ala Gly Thr Gly Ala Thr Thr Cys Ala Gly Ala Thr Gly Ala Ala Gly
308 865             870             875             880
310 Ala Gly Ala Ala Thr Gly Thr Gly Gly Cys Ala Gly Cys Ala Ala Gly
311             885             890             895
313 Ala Gly Cys Ala Thr Cys Cys Cys Cys Gly Gly Ala Gly Cys Cys Ala
314         900             905             910
316 Gly Ala Ala Cys Thr Cys Cys Ala Gly Cys Thr Cys Ala Gly Gly Cys
317         915             920             925
319 Cys Thr Thr Ala Cys Cys Ala Ala Ala Thr Gly Gly Ala Ala Gly Thr
320     930             935             940
322 Thr Gly Cys Cys Cys Ala Gly Cys Cys Ala Gly Cys Cys Thr Thr Gly
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326              965                970                975
328 Thr Cys Ala Thr Cys Thr Gly Cys Cys Thr Cys Cys Cys Thr Ala Cys
329              980                985                990
331 Ala Gly Gly Gly Ala Gly Thr Gly  Gly Ala Ala Ala Ala  Ala Cys Cys
332         995                1000               1005
334 Ala Gly  Ala Gly Thr Gly Gly  Cys Thr Gly Thr Thr  Thr Ala Cys
335      1010               1015               1020
337 Ala Thr  Thr Gly Cys Cys Ala  Ala Gly Gly Ala Thr  Cys Ala Cys
338      1025               1030               1035
340 Thr Thr  Ala Gly Ala Cys Ala  Ala Gly Ala Ala Gly  Ala Ala Ala
341      1040               1045               1050
343 Ala Ala  Ala Gly Cys Ala Thr  Cys Thr Gly Ala Gly  Cys Cys Thr
344      1055               1060               1065
346 Gly Gly  Ala Ala Ala Ala Gly  Thr Thr Ala Thr Ala  Gly Thr Thr
347      1070               1075               1080
349 Cys Thr  Thr Gly Thr Cys Ala  Ala Thr Ala Ala Gly  Gly Thr Ala
350      1085               1090               1095
352 Cys Thr  Gly Cys Thr Ala Gly  Thr Thr Gly Ala Ala  Cys Ala Gly
353      1100               1105               1110
355 Cys Thr  Cys Thr Thr Cys Cys  Gly Cys Ala Ala Gly  Gly Ala Gly
356      1115               1120               1125
358 Thr Thr  Cys Cys Ala Ala Cys  Cys Ala Thr Thr Thr  Thr Thr Gly
359      1130               1135               1140
361 Ala Ala  Gly Ala Ala Ala Thr  Gly Gly Thr Ala Thr  Cys Gly Thr
362      1145               1150               1155
364 Gly Thr  Thr Ala Thr Thr Gly  Gly Ala Thr Thr Ala  Ala Gly Thr
365      1160               1165               1170
367 Gly Gly  Thr Gly Ala Thr Ala  Cys Cys Cys Ala Ala  Cys Thr Gly
368      1175               1180               1185
370 Ala Ala  Ala Ala Thr Ala Thr  Cys Ala Thr Thr Thr  Cys Cys Ala
371      1190               1195               1200
373 Gly Ala  Ala Gly Thr Thr Gly  Thr Cys Ala Ala Gly  Thr Cys Cys
374      1205               1210               1215
376 Thr Gly  Thr Gly Ala Thr Ala  Thr Thr Ala Thr Cys  Ala Gly Thr
377      1220               1225               1230
379 Ala Cys  Ala Gly Cys Thr Cys  Ala Ala Ala Thr Cys  Cys Thr Thr
380      1235               1240               1245
382 Gly Ala  Ala Ala Ala Cys Thr  Cys Cys Cys Thr Cys  Thr Thr Ala
383      1250               1255               1260
385 Ala Ala  Cys Thr Thr Gly Gly  Ala Ala Ala Ala Thr  Gly Gly Ala
386      1265               1270               1275
388 Gly Ala  Ala Gly Ala Thr Gly  Cys Thr Gly Gly Thr  Gly Thr Thr
389      1280               1285               1290
391 Cys Ala  Ala Thr Thr Gly Thr  Cys Ala Gly Ala Cys  Thr Thr Thr
392      1295               1300               1305
394 Thr Cys  Cys Cys Thr Cys Ala  Thr Thr Ala Thr Cys  Ala Thr Thr
395      1310               1315               1320
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Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220> to
<223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY
PATENT APPLICATION: **US/09/515,363B**

DATE: 06/20/2001
TIME: 16:07:53

Input Set : **A:\pto.txt**
Output Set: **N:\CRF3\06202001\I515363B.raw**

L:790 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3